

19. Justify the role of the complement system in forming the membrane attack complex (MAC) through different pathways.
20. Compare the two classes of Major Histocompatibility Complex (MHC) molecules with reference to structure, function, and mechanism of action.
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APRIL/MAY 2025

**23UBT31 — IMMUNOLOGY AND
IMMUNOTECHNOLOGY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL Questions.

1. What are PRRs?
2. Write the functional mechanism of cilia in innate immunity.
3. Define Hapten.
4. Write any Two functions of Fab region antibody.
5. Define affinity.
6. What are agglutinins?
7. Define anaphylotoxin.
8. Define opsonization.



9. Define allergens.

10. Define MHC.

SECTION B — ($5 \times 5 = 25$ marks)

Answer ALL Questions.

11. (a) Write the process of T cell development.

Or

(b) Define acquired immunity and add a note on its characteristics.

12. (a) Are antigen and immunogen similar? Justify.

Or

(b) Write down types of antibodies and their individual role in immune response.

13. (a) Explain the immunoelectrophoretic technique.

Or

(b) Compare precipitation and agglutination reactions.

14. (a) List out the importance with a brief note on vaccines.

Or

(b) Describe the properties and functions of cytokines.

15. (a) Write a note on the structure and function of MHC I.

Or

(b) Write a short note on type 2 hypersensitivity reaction.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE Questions.

16. Discuss about the components of the innate immune system.

17. Illustrate the production of monoclonal antibodies and add a note on their applications.

18. Illustrate the method and variants of ELISA technique with applications.

